

## The FIRST mission: Science objectives and this meeting

Göran L. Pilbratt

ESA Astrophysics Division/Space Science Department, ESTEC/SCI-SA, Keplerlaan 1,  
NL-2201 AZ Noordwijk, The Netherlands  
*gpilbratt@astro.estec.esa.nl*

The ‘Far InfraRed and Submillimetre Telescope’ (FIRST) is the fourth cornerstone mission in the European Space Agency (ESA) science programme. It will perform imaging photometry and spectroscopy in the far infrared and submillimetre part of the spectrum, covering approximately the 60–670  $\mu\text{m}$  range.

FIRST will carry a 3.5 metre diameter passively cooled telescope. The science payload complement – two cameras/medium resolution spectrometers (PACS and SPIRE) and a very high resolution heterodyne spectrometer (HIFI) – will be housed in a superfluid helium cryostat. FIRST will be placed in a transfer trajectory towards its operational orbit around the Earth-Sun L2 point by an Ariane 5 (shared with the ESA cosmic background mapping mission Planck) in early 2007.

The key science objectives emphasize current questions connected to the formation of galaxies and stars, however, having unique capabilities in several ways, FIRST will be a facility available to the entire astronomical community. Once operational FIRST will offer a minimum of 3 years of routine observations; roughly 2/3 of the available observing time is open to the general astronomical community through a standard competitive proposal procedure. In this meeting we want to discuss how best to use the available FIRST observatory time in order to maximise the scientific return from FIRST.